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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,974	12/06/2004	Takashi Sasai	450100-04621	8741
22852	7590	10/03/2005	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			MILORD, MARCEAU	
			ART UNIT	PAPER NUMBER
			2682	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/516,974

Applicant(s)

TAKASHI SASAI ET AL

Examiner

Marceau Milord

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21, 23 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 23 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-21, 23, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Law et al (US Patent No 6792247 B2) in view of Besharat et al (US Patent No 6219540 B1) and Bouet (US Patent No 6879810 B2).

Regarding claims 1-2, 6-8, Law et al discloses a communication method in which at least first and second communication devices (fig. 3) are provided and wireless communication is performed between the respective communication devices in accordance with a predetermined communication method, wherein when a predetermined connection operation is performed in said first communication device (col. 2, lines 10-32; col. 3, line 58- col. 4, line 12), when a

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predetermined standby operation is performed in said second communication device, said inquiry message is received and an response message to the received inquiry message is wirelessly transmitted (col. 4, lines 15-59).

However, Law et al does not specifically disclose the feature of an inquiry message to discover a device to be connected by the wireless communication is wirelessly transmitted after restricting a transmissible distance to a close range, and a first communication device performs connection processing with respect to a second communication device, when the response message is received, wherein the processing to restrict a transmissible distance to the close range is processing to set transmission power to a limited value compared to the transmission power at the time of normal wireless communication.

On the other hand, Besharat et al, from the same field of endeavor, discloses a communication device that provides an out-of-range battery saving function for a receiver, which receives messages transmitted from at least one transmitter over a radio frequency channel. The communication device includes a signal quality detector which detects when the communication device is out-of-range of the transmitter, and a controller which determines when the communication device is out-of-range for a first predetermined period of time, generating an out-of-range confirmation signal (col. 2, lines 27-62). A first visual warning is displayed on a display and a power control circuit subsequently suspends power to the receiver. Alternately, when out-of-range for a second predetermined period of time less than the first period of time, an out-of-range notification signal is generated. The display displays a second visual warning while the power control circuit maintains a supply of power to the receiver to enable in-range detection of the transmitter (col. 3, lines 2-38; col. 4, lines 9-46).

Bouet also discloses a method of and a system for controlling low power radio frequency activity of terminals, including a method of selecting and activating a wireless terminal. A first terminal transmits a signal, including a transmission indication. A second terminal receives the signal a number of times and compares the received transmission indications with predetermined indication values. When the comparison shows that a predetermined number of satisfactory transmission indications have been received by the second terminal, the second terminal commences transmission. The transmission indication can be messages having tail portions with a pre-selected set of states (col. 2, lines 9-30; col. 3, lines 27-67). Furthermore, basic identification inquiry in which the recipient slave terminal has no restrictions in answering inquiry requests. The left most device is the master device, and the recipient slave device is on the right. The IAC is used to discover whether other Bluetooth units are in the operating range of a master Bluetooth device. LAPs, when used in inquiry packets, are device type identifiers, used to identify the type of device that should reply to the inquiry request messages (col. 5, line 28-col. 6, line 49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Bouet to the modified system of Besharat and Law in order to provide a method of controlling low power RF activity of devices, and enable a low power RF enabled device to send a specific signal to other low power ARF devices informing that is appropriate for the other devices to be low power RF, or respond to inquiries and pages.

Regarding claim 3, Law et al as modified discloses a communication method in which at least first and second communication devices (fig. 3) are provided and wireless communication is performed between the respective communication devices, wherein wireless transmission of

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the inquiry message by a predetermined connection operation and/or reception of the inquiry message by a predetermined standby operation is performed while operation means provided in the respective communication devices are continuously operated (col. 3, line 44- col. 4, line 24).

Regarding claim 4, Law et al as modified discloses a communication method in which at least first and second communication devices (fig. 3) are provided and wireless communication is performed between the respective communication devices wherein after said connection processing is performed, data transfer processing is performed in accordance with a program which is being executed in the first or the second communication device (col. 4, line 36- col. 5, line 5).

Regarding claim 5, Law et al as modified discloses a communication method in which at least first and second communication devices (fig. 3) are provided and wireless communication is performed between the respective communication devices wherein said second communication device lowers reception sensitivity to the inquiry message, so that only the inquiry message wirelessly transmitted from the close range can be received (col. 4, lines 15-64).

Regarding claims 9-11, 14-16, Law et al discloses a communication system in which at least first and second communication devices (fig. 3) are provided and wireless communication is performed between respective communication devices by a predetermined communication method, wherein said first communication device comprises: communication processing means to perform transmission and reception of a wireless signal connection operation means (col. 2, lines 10-32; col. 3, line 58- col. 4, line 12), and control means to make an inquiry message transmitted from said communication processing means in a state in which a transmissible distance is restricted to a close range when said connection operation means is operated and to

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perform connection processing with respect to a transmission source of the response message when the response message to the inquiry message is received; and said second communication device comprises: communication processing means to perform transmission and reception of a wireless signal, standby operation means, and control means to make said inquiry message received by said communication processing means when said standby operation means is operated and to make the response message to the received inquiry message wirelessly transmitted by said communication processing means (col. 4, lines 15-59).

However, Law et al does not specifically disclose the feature of an inquiry message to discover a device to be connected by the wireless communication is wirelessly transmitted after restricting a transmissible distance to a close range, and a first communication device performs connection processing with respect to a second communication device, when the response message is received, wherein the processing to restrict a transmissible distance to the close range is processing to set transmission power to a limited value compared to the transmission power at the time of normal wireless communication.

On the other hand, Besharat et al, from the same field of endeavor, discloses a communication device that provides an out-of-range battery saving function for a receiver, which receives messages transmitted from at least one transmitter over a radio frequency channel. The communication device includes a signal quality detector which detects when the communication device is out-of-range of the transmitter, and a controller which determines when the communication device is out-of-range for a first predetermined period of time, generating an out-of-range confirmation signal (col. 2, lines 27-62). A first visual warning is displayed on a display and a power control circuit subsequently suspends power to the receiver. Alternately, when out-

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of-range for a second predetermined period of time less than the first period of time, an out-of-range notification signal is generated. The display displays a second visual warning while the power control circuit maintains a supply of power to the receiver to enable in-range detection of the transmitter (col. 3, lines 2-38; col. 4, lines 9-46).

Bouet also discloses a method of and a system for controlling low power radio frequency activity of terminals, including a method of selecting and activating a wireless terminal. A first terminal transmits a signal, including a transmission indication. A second terminal receives the signal a number of times and compares the received transmission indications with predetermined indication values. When the comparison shows that a predetermined number of satisfactory transmission indications have been received by the second terminal, the second terminal commences transmission. The transmission indication can be messages having tail portions with a pre-selected set of states (col. 2, lines 9-30; col. 3, lines 27-67). Furthermore, basic identification inquiry in which the recipient slave terminal has no restrictions in answering inquiry requests. The left most device is the master device, and the recipient slave device is on the right. The IAC is used to discover whether other Bluetooth units are in the operating range of a master Bluetooth device. LAPs, when used in inquiry packets, are device type identifiers, used to identify the type of device that should reply to the inquiry request messages (col. 5, line 28-col. 6, line 49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Bouet to the modified system of Besharat and Law in order to provide a method of controlling low power RF activity of devices, and enable a low power RF enabled device to send a specific signal to other low power ARF devices

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informing that is appropriate for the other devices to be low power RF, or respond to inquiries and pages.

Regarding claim 12, Law et al as modified discloses a communication system in which at least first and second communication devices (fig. 3) are provided and wireless communication is performed between respective communication devices by a predetermined communication method, wherein when the connection processing is completed by the control means of said first communication device, data transfer processing is performed in accordance with a program which is being executed in the first or second communication device (col. 4, line 36- col. 5, line 5).

Regarding claim 13, Law et al as modified discloses a communication system in which at least first and second communication devices (fig. 3) are provided and wireless communication is performed between respective communication devices by a predetermined communication method, wherein the communication processing means of said second communication device lowers the reception sensitivity to the inquiry message so that only the inquiry message wirelessly transmitted from the close range can be received (col. 4, lines 15-64).

Regarding claims 17-19, 23, 27, Law et al discloses a communication device (fig. 3) which performs wireless communication with another communication device in accordance with a predetermined communication method, comprising: communication processing means to perform transmission and reception of a wireless signal; connection operation means, standby operation means, and control means to make an inquiry message transmitted from said communication means (col. 2, lines 10-32; col. 3, line 58- col. 4, line 12), said control means makes the inquiry message received and makes the response message to the inquiry message

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transmitted by said communication processing means; said connection operation means and standby operation means are made to be a common operation means (col. 4, lines 15-59).

However, Law et al does not specifically disclose the feature of a processing means in a state in which a transmissible distance is restricted to a close range when a connection operation means is operated and to perform connection processing with respect to a transmission source of the response message when the response message to the inquiry message is received, and when the common operation means is operated said control means performs control to make both the transmission processing of the inquiry message and the reception processing of the inquiry message alternately performed by the communication processing means, wherein the processing to restrict a transmissible distance to the close range is processing to set transmission power to a limited value compared to the transmission power at the time of normal wireless communication.

On the other hand, Besharat et al, from the same field of endeavor, discloses a communication device that provides an out-of-range battery saving function for a receiver, which receives messages transmitted from at least one transmitter over a radio frequency channel. The communication device includes a signal quality detector which detects when the communication device is out-of-range of the transmitter, and a controller which determines when the communication device is out-of-range for a first predetermined period of time, generating an out-of-range confirmation signal (col. 2, lines 27-62). A first visual warning is displayed on a display and a power control circuit subsequently suspends power to the receiver. Alternately, when out-of-range for a second predetermined period of time less than the first period of time, an out-of-range notification signal is generated. The display displays a second visual warning while the

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power control circuit maintains a supply of power to the receiver to enable in-range detection of the transmitter (col. 3, lines 2-38; col. 4, lines 9-46).

Bouet also discloses a method of and a system for controlling low power radio frequency activity of terminals, including a method of selecting and activating a wireless terminal. A first terminal transmits a signal, including a transmission indication. A second terminal receives the signal a number of times and compares the received transmission indications with predetermined indication values. When the comparison shows that a predetermined number of satisfactory transmission indications have been received by the second terminal, the second terminal commences transmission. The transmission indication can be messages having tail portions with a pre-selected set of states (col. 2, lines 9-30; col. 3, lines 27-67). Furthermore, basic identification inquiry in which the recipient slave terminal has no restrictions in answering inquiry requests. The left most device is the master device, and the recipient slave device is on the right. The IAC is used to discover whether other Bluetooth units are in the operating range of a master Bluetooth device. LAPs, when used in inquiry packets, are device type identifiers, used to identify the type of device that should reply to the inquiry request messages (col. 5, line 28-col. 6, line 49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Bouet to the modified system of Besharat and Law in order to provide a method of controlling low power RF activity of devices, and enable a low power RF enabled device to send a specific signal to other low power ARF devices informing that is appropriate for the other devices to be low power RF, or respond to inquiries and pages.

Regarding claim 20, Law et al as modified discloses a communication device (fig. 3) which performs wireless communication with another communication device in accordance with a predetermined communication method, wherein when the connection processing is completed by said control means, data transfer processing is performed in accordance with a program which is being executed (col. 2, lines 10-32).

Regarding claim 21, Law et al as modified discloses a communication device (fig. 3) which performs wireless communication with another communication device in accordance with a predetermined communication method, further comprising: standby operation means, wherein when said standby operation means is operated, said control means makes the inquiry message received by said communication processing means and makes the response message to the received inquiry message wirelessly transmitted by said communication processing means (col. 4, line 36- col. 5, line 5).

Regarding claim 25, Law et al as modified discloses a communication device (fig. 3) which performs wireless communication with another communication device in accordance with a predetermined communication method wherein while said standby operation means is continuously operated, said control means performs processing to make the inquiry message received (col. 3, line 44- col. 4, line 24).

Regarding claim 26, Law et al as modified discloses a communication device (fig. 3) which performs wireless communication with another communication device in accordance with a predetermined communication method wherein said communication processing means lowers the reception sensitivity to the inquiry message so that only the inquiry message wirelessly transmitted from the close range can be received (col. 4, lines 15-64).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MARCEAU MILORD

Marceau Milord

Primary Examiner

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MARCEAU MILORD
PRIMARY EXAMINER

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